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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/988,479	12/10/1997	MICHAEL E. FEIN	009103-01400	7564

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EXAMINER

INZIRILLO, GIOACCHINO

ART UNIT PAPER NUMBER

2828

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/988,479

Applicant(s)

FEIN, MICHAEL E.

Examiner

Gioacchino Inzirillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-31 and 48-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-31 and 48-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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The Office has determined, that in order to clarify the 112 Rejection of the Final Rejection, and ensure the correctness of the Art Rejection, the prosecution of this applicant should be reopened.

An Office Action to that effect follows.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 – 31 and 48 – 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The description of the “ports” is misleading and incorrect. The “ports” as described, where present in the claims, can be mistaken for a connection device coupling the non-imaging optical waveguide to the optical fiber, when they are in fact the openings in the non-imaging waveguide that allows the light to pass through. It is recited in the claims “a non-imaging optical waveguide, **connected** to said first port...”, emphasis added. Clearly this is incorrect and misleading because the word connected does not properly describe an integral relationship between two areas of a single device. For example, the inside and outside surfaces of a box cannot accurately be describe of as “connected”; the same goes for openings in a hollow cylinder, they cannot be said to be connected to the cylinder. The “non-imaging optical concentrator” can be misunderstood to be a separate item of the optical setup when it is in fact a physical part of the non-imaging optical waveguide. This verbiage has the same problem articulated above for in discussion of the port.

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The descriptions of the sections parallel to the plane of said corner is unclear, where present in the claims, since neither the sections nor the plane are defined and also the manner in which they are identical (optical characteristics, same material, same size etc.) is not mentioned, and the upper and lower surfaces of the waveguide are not defined. It is unclear how there can be planar reflective surfaces in two sections of a parabola, and similarly how a corner (generally understood to contain a right angle) is formed in the parabolic sections.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2 – 31 and 48 – 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Jansson et al US4898450. Fig 11 shows an apparatus for efficiently deflecting light from an optical fiber around a corner comprising a first port, through which a beam 57 enters and exits at an angle less than 90 degrees, into non-imaging optical waveguide 53 where portion 54 is designed to redirect light, a second port, through which beam 58 may exit, a third port where a beam 59 may exit, and a fourth port where beam 56, may be a new beam or a return signal may enter. In Fig 11 we can also see that the sections parallel to the plane of the corner are identical, rectangular and planar reflective surfaces. Fig 11 also shows how the ports have circular and rectangular portions.

Response to Arguments

Applicant's arguments filed 04 December 2000 have been fully considered but they are not persuasive.

Regarding Attorney's arguments on the word "port":

The Attorney's argument states the word port as described in the claims is meant to be an opening and a connection device. A port as described in *Merriam-Webster's Collegiate Dictionary*, Tenth Edition is generally defined as a "an opening for intake or exhaust...the area of opening in a cylinder..." A device as defined in the same dictionary as being "...a piece of equipment or a mechanism designed to serve a special purpose..." Therefore a connection device would naturally follow to be a device designed to form a connection. Attorney seems trying to splice two related but different concepts, "adapted to be coupled" and connection device. This is a misleading and inaccurate description of the invention. The original rejection stands.

Regarding Attorney's arguments on "non-imaging optical concentrator":

Attorney's argues that the "non-imaging optical concentrator" is a separate item and refers the examiner to Fig. 3 and Fig. 4 and sections of pages 25, 27, 14 and 29 of the specification. There is nothing there that over comes the arguments by the Examiner. It seems that referred portions of the disclosure that indicate that the shape of the corner turner may be changed to suite a particular need. How this can be interpreted as a different item in unknown to

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the Examiner, and seems to be nothing but fanciful thought on the part of the Attorney. The original rejection stands.

Regarding Attorney's arguments on Section parallel to the plane of the corner:

Attorney argues that 3-D inherently have planes running through them, and they do. In fact, they have an infinite number of planes running through them and they can all be arbitrarily mathematically defined. However the fact remains that the "dominant plane" that the Attorney is arguing is not defined and what he considers to be the "dominant plane" may not be what another of skill in the art would consider to be the "dominant plane", because of the arbitrariness of being able to mathematically define planes in space. The original rejection stands.

Regarding Attorney's arguments on the identicalness of the sections:

~~The Examiner is unclear as to why his appreciation of the invention is necessary or pertinent to the discussion of the claims. Furthermore, he~~ would appreciate it if the Attorney would direct him in the next amendment to the claims that recite a "2-D corner turner". To reiterate the original rejection, the manner in which the sections parallel to the undefined plane of the corner turner are identical is unclear, (i.e.) optical properties, symmetrically equivalent or geometrically shape etc. The original rejection stands.

Regarding Attorney's arguments on the upper and lower surfaces:

If what the Attorney meant by "upper" and "lower" was inside surface and outside surface, then why the ambiguous terms? 3-D objects upon rotation can have different upper and

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lower surfaces. However the inside and outside will not change upon rotation. The rejection still stands.

Regarding Attorney's arguments on the reflective surfaces:

Attorney's 2-D analogy with a 3-D piece of air conditioning duct, much the same as the limitation of the claims is unclear. Various geometries can be formed by the intersections of geometrical shapes. Again, the Examiner must uphold the original rejection.

In light of the 112 rejections still standing, Attorney's arguments are moot, and the Examiner maintains the rejection based upon the Jannson reference.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gioacchino Inzirillo whose telephone number is 703-305-1967.

The examiner can normally be reached on M-F 8:30AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on 703-308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

July 9, 2002


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